

Comparisons of Job Characteristics

Focus Occupation: [Computer Programmers \(15-1021\)](#)

Associated Occupation: [Database Administrators \(15-1061\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 91

Focus Occupation: Computer Programmers (15-1021)

Associated Occupation: Database Administrators (15-1061)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Computers and Electronics	8.4	19.9	24.2	>> Current knowledge level is likely more than sufficient
Customer and Personal Service	11.3	14.2	9.0	<< Extensive education and/or training may be required
Clerical	7.3	10.9	5.0	<< Extensive education and/or training may be required
Communications and Media	5.3	8.0	5.9	<< Extensive education and/or training may be required
Telecommunications	3.9	7.3	4.8	<< Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 69

Focus Occupation: Computer Programmers (15-1021)

Associated Occupation: Database Administrators (15-1061)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Systems Analysis	6.5	10.6	9.2	< A higher skill level may be required
Systems Evaluation	6.4	10.4	10.1	0 Current skill level may be sufficient
Programming	2.2	9.9	17.3	>> Skill level is likely more than sufficient
Operations Analysis	5.0	9.6	10.1	0 Current skill level may be sufficient
Technology Design	2.6	6.1	6.2	0 Current skill level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 97			
Focus Occupation: Computer Programmers (15-1021) Associated Occupation: Database Administrators (15-1061)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Information Ordering	9.9	12.3	12.8	0	Current ability level may be sufficient
Category Flexibility	9.0	11.0	9.4	<	Some improvement in abilities may be required
Flexibility of Closure	7.8	10.1	7.6	<<	Extensive improvement in abilities may be required
Fluency of Ideas	7.6	9.9	8.3	<	Some improvement in abilities may be required
Originality	7.6	9.8	8.7	<	Some improvement in abilities may be required
Selective Attention	8.7	9.8	9.3	0	Current ability level may be sufficient
Mathematical Reasoning	6.3	9.7	10.2	0	Current ability level may be sufficient
Number Facility	6.3	8.9	9.6	0	Current ability level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 93
Focus Occupation: Computer Programmers (15-1021) Associated Occupation: Database Administrators (15-1061)		
Work Activities	Exclusivity of Activity	
Adjust computer operation system	84	
Communicate technical information	4	
Develop computer performance standards	87	
Develop or maintain databases	30	
Develop records management system	76	
Develop tables depicting data	33	
Evaluate computer system user requests or requirements	81	
Follow data security procedures	77	
Follow data storage procedures	75	
Implement computer system changes	92	
Install computer programs	89	
Maintain client-server database	89	
Maintain or repair computers or related equipment	81	
Monitor computer operation	85	

Prepare instruction manuals	78
Program mainframe computer	84
Provide technical computer training	82
Provide technical support to computer users	80
Revise or correct errors in computer programs, software, or systems	85
Test computer programs or systems	78
Use computer application flow charts	84
Use computer programming language	82
Use computers to enter, access or retrieve data	3
Use geographical information system (GIS) software	72
Use interpersonal communication techniques	10
Use knowledge of mainframe computers	78
Use object-oriented computer programming techniques	85
Use project management techniques	47
Use relational database software	26
Use spreadsheet software	18
Use structural analysis techniques to analyze computer systems	89
Use word processing or desktop publishing software	17
Write computer software, programs, or code	84
Write documentation for computer programming	87

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 86

Focus Occupation: Computer Programmers (15-1021)
Associated Occupation: Database Administrators (15-1061)

Tools and Technologies	Exclusivity
Computers	1
Content authoring and editing software	1
Data management and query software	1
Development software	4
Industry specific software	1
Network applications software	1
Operating environment software	12

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.